

## CHAPTER 2

### PROPOSED ACTION AND ALTERNATIVES

#### INTRODUCTION

##### Contents of This Chapter

This chapter contains information on how the BLM would manage the resources and uses in the Kasha-Katuwe Tent Rocks National Monument under any of three different alternatives. BLM staff members have developed these alternatives based on guidance contained in Proclamation 7394 establishing the monument, the National Environmental Policy Act of 1969 (NEPA), the Federal Land Policy and Management Act of 1976, BLM resource management planning regulations, professional expertise and experience, and input from the public. Specifics of each alternative are found in the fifth (next-to-last) section of the chapter, “Description of the Proposed Action and Alternatives.”

The second section of the chapter, “Proclamation Management Requirements (All Alternatives),” lists the specific conditions established for the monument in Presidential Proclamation 7394. (Note: A copy of the proclamation is found in Appendix A.) The chapter’s third section, “Management Guidance Common to All Alternatives,” lists BLM management measures, decisions or guidelines already in place that will be carried forward for the monument regardless of which alternative is selected. BLM resource program management goals and objectives are listed in the fourth section of the chapter, while the chapter’s sixth and last section contains brief discussions of the alternatives considered but not analyzed in detail.

##### The BLM Planning/Environmental Assessment Process for the Tent Rocks National Monument

A BLM Resource Management Plan (RMP)/Environmental Impact Statement (EIS) documents the agency’s land use planning and environmental analysis for a given area. Analy-

sis of RMP alternatives generally leads to RMP-level land use planning decisions (these are more general or broad in scope) by resolving resource use issues. However, this analysis may also lead to activity- and project-level planning decisions (these are more site-specific and detailed) required to make changes in resource management in a planning area. Furthermore, some issues cannot be resolved through alternative analysis alone, but require monitoring of the results of management practices. These results then trigger management changes designed to lead to the achievement of a desired condition or result.

As outlined in the BLM Land Use Planning Handbook (H-1601-1) and NEPA, the agency must identify a range of reasonable land use planning alternatives. The regulations of the Council on Environmental Quality (CEQ—Title 40, Code of Federal Regulations, Section 1502.4) also require that an Environmental Impact Statement (EIS) rigorously explore and objectively evaluate reasonable alternatives to a proposed action. One alternative is the “No Action” Alternative, which is required for baseline impact analysis under planning and environmental regulations. The BLM has gathered input into the development of both reasonable and practical management alternatives for the KKTR National Monument through its public scoping process, which officially began for the National Monument in February 2004 (with the publication in the *Federal Register* of the BLM’s Notice of Intent to prepare an RMP/EIS—Vol. 69, No. 14, pp. 3167-69; January 22, 2004).

Each of the three alternatives presented in this document has a different blend or balance of resource allocations, uses, and protection. The analysis of the impacts of each alternative is done to guide managers in making informed land use decisions about the monument. Different combinations of resource uses are identified to resolve resource management issues, concerns, and conflicts. Alternatives must provide

optional ways of meeting the BLM's resource use and protection responsibilities, through resource allocations and methods that will meet present and future national needs. These alternatives must be reasonable and achievable; provide a mix of resource protection; manage use and development; be responsive to the issues; meet the planning criteria; and comply with federal laws, regulations, and BLM planning policies.

This is a new "stand-alone" RMP for the monument. Therefore, all RMP-level management decisions applicable to the monument are stated in this document.

Recommendations are also made for the use of resources on adjoining tracts of land that have characteristics or values complimentary to those for which the monument was proclaimed. Acquisition of these lands is recommended under each alternative, provided willing sellers are available. Under the No Action Alternative, the BLM would set up Cooperative Management Agreements with adjoining landowners to consolidate land management and use, if acquisition of nonfederal land was not possible.

## **PROCLAMATION MANAGEMENT REQUIREMENTS (ALL ALTERNATIVES)**

Specific language in the proclamation establishes some conditions that apply to management of the monument regardless of which alternative (or combination of alternatives) the BLM chooses. These conditions include the following.

- All federal land and interest in lands within the boundaries of the KKTR National Monument are withdrawn from all forms of entry, location, selections, sale, leasing or other disposition under the public land laws. This withdrawal applies under (but is not limited to) the mining laws and all laws relating to mineral and geothermal leasing. The only exception to this withdrawal would be an exchange that would further the protective purposes of the monument.

The use of all motorized and mechanized vehicles off road is prohibited, except for emergency or authorized administrative purposes.

- Lands and interests in lands within the national monument not owned by the United States are reserved as a part of the monument if title to them is acquired by the United States.
- The BLM will manage the monument in close cooperation with the Pueblo de Cochiti.
- The management plan for the monument will include appropriate transportation planning that addresses the actions, including road closures or travel restrictions, needed to protect the geologic, cultural, and biological objects of interest identified in the proclamation (refer to Appendix A) and to further the purposes of the American Indian Religious Freedom Act of August 11, 1978 (Title 42 of the U.S. Code, Section 1996).
- The Secretary of the Interior will retire the portion of the grazing allotments within the monument, under applicable laws, unless livestock grazing will advance the purposes of the proclamation.
- Nothing in the proclamation enlarges or diminishes the jurisdiction of the State of New Mexico over fish and wildlife management.
- The monument is subject to valid existing rights.
- The proclamation did not reserve water as a matter of federal law. However, any water use or rights reserved or appropriated by the United States on or before the date of the proclamation are not reduced or relinquished. The Secretary of the Interior will work with appropriate state authorities to ensure that any water resources needed for monument purposes are available.

Nothing in the proclamation revokes any existing withdrawal, reservation, or appropriation; however, the national monument is the dominant reservation.

- No person may use, injure, destroy, or remove any feature of this monument without authorization, nor locate nor settle upon any of the lands.

## **MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES**

Some existing actions, decisions, and guidelines under which the ACEC has been managed have effectively met public needs and/or resolved issues, so the BLM will continue to use them in the monument. These are brought forward from the *Rio Puerco Resource Management Plan* (USDI, BLM 1986; maintained and reprinted 1992) and the *Final Protection Plan for Tent Rocks, An Area of Critical Environmental Concern* (USDI, BLM 1987) and are described below. Other resource or program management guidance that would be used under any alternative also is included in this section.

### **Access and Transportation**

Numerous roads exist in the monument, developed either by continuous casual use or for a purpose such as the removal of material excavated from the area's old mines. If not needed for visitor, safety or administrative purposes, some of these roads will be closed. BLM staff will determine restoration measures such as stabilization and reseeded to prevent soil erosion. Such Best Management Practices for minimizing sediment pollution will be developed and implemented on a site-specific basis. (Refer to "Water Resources" in the discussions of the three alternatives below for additional information.)

### **Air Quality**

The BLM's objective for air quality is to prevent significant deterioration of the Class II airshed

designated by the Clean Air Act. Meeting this objective requires that BLM's own management actions and any authorizations the agency grants for the use of public lands comply with and support local, state, and federal laws. All BLM actions and use authorizations will be designed and stipulated to protect air quality within the monument (including any acquired lands or lands managed under Cooperative Management Agreements) and the nearby National Park Service Class I area, Bandelier National Monument.

### **American Indian Uses and Traditional Cultural Practices**

The BLM will continue close coordination with the Pueblo de Cochiti in the day-to-day operations of the monument. For actions requiring an Environmental Assessment (EA) and/or Environmental Impact Statement (EIS) under NEPA, the BLM will consult with the Cochiti, Santo Domingo, Jemez, and Zia Pueblos, as well as any tribes that may come forward later to express concern about traditional cultural properties, places, and uses in the monument. These tribes, plus the Jicarilla Apache Nation and the Hopi Tribe, will be included under any consultation required by the Native American Graves Protection and Repatriation Act.

### **Cultural Resources**

Under any alternative selected, the BLM would comply with the National Historic Preservation Act through procedures described in the "Protocol Agreement Between New Mexico Bureau of Land Management and New Mexico State Historic Preservation Officer" (signed in June 2004) or any later agreements. The original agreement normally requires intensive archeological survey (BLM Class III inventory) of areas that would be directly affected by a project or action. If archeological resources are found, the preferred course of action is to redesign the project so that the remains are avoided. If this is not possible, the BLM will undertake data recovery or other measures developed in consultation with the New Mexico State Historic Preservation Officer to reduce adverse impacts.

## **Environmental Justice**

The BLM must identify, inform and consult with minority and low-income groups about federal actions that may affect them, and should not disproportionately impact these groups in an adverse way. Minority and low-income people will likely be affected by actions in the monument. Therefore, they are being consulted and kept informed.

## **Fire Management**

The proposed actions and priorities in the *Albuquerque Field Office Fire Management Plan* (USDI, BLM 2004a) and the *Resource Management Plan Amendment for Fire and Fuels Management on Public Land in New Mexico and Texas* (USDI, BLM 2004b) apply to the monument and any acquired properties therein. (These actions and priorities are also discussed below under “Vegetation Treatments.”)

Through proposed vegetation treatments, the BLM will focus on moving the landscape toward the desired future condition of Fire Regime Condition (FRC) Class 1. FRC Class 1 is characterized as being within the natural (historical) range of variability for vegetative structure and function; fuel composition; fire frequency, severity and pattern; and other associated disturbances. No areas of the monument or Decision Area are currently in FRC Class 1. The priority for the Planning Area (including the Decision Area) is to treat areas that are in FRC Classes 2 and 3.



*Manzanita- used for medicinal purposes by American Indians.*

The BLM initially addressed fire and fuels management for this area as part of *Categorical Exclusion #NM-010-FY2003-066: Tent Rocks Wildland Urban Interface, Hazardous Fuels Reduction Project* (USDI, BLM 2003). In this project, the agency proposed to reduce stand densities in the monument by mechanical thinning (with chainsaws); harvesting fuelwood; and lopping and scattering, piling and/or chipping, followed by a prescribed burn. Trees in areas with slopes over 15 percent were eliminated from the proposed treatments, so 610 acres within the Decision Area are suitable. These treatments will be carried out regardless of the alternative selected for managing the Planning Area or Decision Area.

## **Hazardous Materials/Solid Waste**

None of these sites are known to exist within the Decision Area. The BLM relies on routine fieldwork activities and non-BLM sources to discover and report spills or other releases of hazardous materials/solid wastes on public lands. The agency investigates reported sites, and plans needed containment and/or cleanup responses on a case-by-case basis. Sites that are reported will be handled under current regulations, with potentially responsible parties identified and pursued based on best available information.

## **Lands and Realty**

The BLM’s ACEC Protection Plan included discussions of Cooperative Agreements with non-federal land owners who would provide land with uses complimentary to the ACEC values. These values have now become monument values, and it is proposed that state and privately owned lands adjoining the monument be acquired wherever willing sellers are available. These lands include two parcels: (1) approximately 965 surface acres privately owned that adjoin the monument on the southwest, and (2) approximately 9,268 surface acres [plus all minerals except gold, silver & quicksilver (mercury)] north of the monument and owned by the University of New Mexico (UNM—refer to Map 3 in Chapter 1).

### **Livestock Grazing**

In accordance with Presidential Proclamation 7394, annual grazing use will be retired from federal land under the two federal grazing leases that exist within the Decision Area. Acreage closed to grazing will be fenced and range developments removed if they are not converted to another purpose (e.g., wildlife waters, recreational uses). Short-term grazing of forage on federal land within the monument will be allowed if the BLM determines it will advance the purposes of the proclamation. If such use is allowed, it is expected that it will be focused on helping to attain specific vegetative objectives.

### **Noxious Weed Control**

One non-native, invasive weed species has been found on federal lands within the Decision Area. This is downy brome grass or “cheatgrass” (*Bromus tectorum*). This grass has spread throughout New Mexico and the Western United States, and the likelihood of successfully controlling it is low. Nevertheless, monitoring and a vigorous treatment program would be a part of Decision Area management, in accordance with Standard Operating Procedures found in Instruction Memorandum NM-010-99-01 (“Noxious Weed Prevention Schedule for Albuquerque Field Office”—refer to Appendix B.) Any Cooperative Management Agreement that is developed for inholdings or edgeholdings would also include provisions for weed monitoring and treatment.

### **Paleontology**

No overriding federal law specifically addresses paleontological resources. Management of the resource is directed principally under the Federal Land Policy and Management Act and the National Environmental Policy Act. The following also afford protection of paleontological resources: the Antiquities Act of 1906, National Natural Landmarks program under the Historic Sites Act of 1935, Executive Order 11593 (Protection and Enhancement of the Cultural Environment) of 1971, National Historic Preservation Act of 1966 (as Amended), Federal Cave Resource Protection Act of 1988 (PL 100-691),

and Secretarial Order 3104. Various subparts of Title 43 of the Code of Federal Regulations address the collection of invertebrate fossils, fossil plants, and protection of paleontological resources from operations authorized under the mining laws.

Fossils are relatively rare, fragile and nonrenewable resources. Although no fossil resources have been documented within the Decision Area boundary, if they are found there, the BLM will locate, evaluate, manage and protect them. The agency has an assistance agreement with the New Mexico Museum of Natural History and Science. Under this agreement, anyone without a permit who finds vertebrate fossils on public land can bring them to the attention of the museum. This ensures the fossils will be available to the people of New Mexico and the United States. The BLM will handle any such discoveries on a case-by-case basis.

### **Recreational Uses**

The BLM will continue to manage the national monument as a standard amenity fee site, as originally authorized by the Department of the Interior and Related Agencies Appropriations Act of 1996 (Public Law 104-134). The agency will collect, retain, and reinvest collected fees at this site under the authority of the Federal Lands Recreation Enhancement Act of 2004 (P.L. 108-447), which has replaced the previous fee collection authority under the Land and Water Conservation Fund Act of 1965.

The Federal Land Policy and Management Act and the Land and Water Conservation Fund Act empower the BLM to issue Special Recreation Permits according to its own procedures and fee schedules for uses such as group activities, commercial recreational tours, and other special recreation uses. Issuing permits is mandatory for commercial and noncommercial recreation-related uses of BLM-administered federal lands. The BLM may also require permits for any uses in special areas where the agency determines that the law requires it. Special areas include those such as the monument with congressional, administrative, or land use planning designations. When issuing permits at the Kasha-

Katuwe Tent Rocks National Monument, the agency will continue to follow the guidelines found in BLM Manual and Handbook H-2930-1, "Recreation Permit Administration."

### **Soil and Water Resources**

Management of the soil and water resource programs involves direct activities as well as support for other program activities. Direct program activities include maintaining water source inventories, participating in state water rights adjudications (none of which affect the national monument at this time), and evaluating watershed conditions in terms of erosion/ sedimentation, water quality, and supply. Program specialists also plan, implement, monitor and maintain watershed rehabilitation projects. Information on soil types helps in properly locating facilities, as well as establishing visitor observation and interpretive opportunities.

For the facilities and land management activities in the Decision Area/Planning Area, support activities include hydrologic design, assessing impacts and recommending mitigation measures. Soils information for the inholdings and /or edgeholdings will be developed as needed when Cooperative Management Agreements or acquisitions are made.

In this RMP, BLM resource specialists are recommending which roads and trails should remain open for use. For those roads and trails that will be closed, agency soil and water specialists will recommend protection measures (Best Management Practices) to minimize watershed impacts and/or restore natural conditions. These specialists will also analyze physical water availability and quality for visitor use, acquire water rights (if needed), and ensure continued compliance with the Safe Drinking Water Act. To assess the potential of Peralta Canyon to support riparian habitat, soil and water specialists will conduct hydrologic studies and analysis, including stream flow gauging of the channel.

[Note: For water resource management, the term "Best Management Practices" or "BMPs" is defined as "methods, measures or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters." The source of this definition is Title 40 of the Code of Federal Regulations, Part 130, "Water Quality Planning and Management."]

The soil types found in the Decision Area (generally grouped by their position on the landscape) include the acreages shown in Table 2-1 below and on Map 4 (in the map section of this document). (Note: Chapter 3 contains expanded information on the Soil Map Units in the Decision Area.)

### **Special-Status Plants**

None of these plant species is known to exist within the Decision Area or adjoining lands. Any plants located will be managed on a case-by-case basis.

### **Threatened, Endangered and Sensitive Wildlife Species**

The Endangered Species Act (ESA) requires special protection and management of federally listed threatened and endangered (T&E), proposed and candidate plant and animal species (16 U.S.C. §§ 1531-1544; December 28, 1973, as amended 1976-82, 1984, 1988). The BLM implements the ESA through its National Special Status Species Policy contained in the BLM Manual, Section 6840. This policy directs the agency to plan and implement programs to conserve T&E species, and to ensure that actions authorized, funded, or carried out do not jeopardize listed species or contribute to the need to list a species. This policy further charges BLM State Directors with the responsibility to give state-designated species the same level of protection as provided for federal candidate species.

**TABLE 2-1**

**SOILS IN THE DECISION AREA  
AND ACREAGE BY LAND OWNERSHIP**

Landscape Location(s)	Soil Map Unit Numbers & Names <sup>a</sup>	Land Ownership (Acres)			
		BLM	State	Private	Total
Valleys	52—Totavi Loamy Sand 300—Waumac-Bamac Assoc.	330	0	177	507
Mesa tops & fan terraces	104—Cochiti Montecito Assoc. 206—Pinitos Loam 307—Flugle-Waumac Complex	1,447	243	0	1,690
Steep mesa sideslopes	345—Espiritu-Bamac Assoc. 353—Cochiti-Espiritu Assoc. 603—Laventana-Mirand Very Cobbly Loam	2,347	278	580	3,205
Totals		4,124	521	757	5,402

Note: <sup>a</sup> Refer also to Map 4 (in the map section) and to the “Soils” section of Chapter 3.

Specifically, the BLM is to carry out the following.

- Determine the distribution, abundance, reasons for the current status, and habitat needs for candidate [and sensitive] species occurring on land administered by the agency, and evaluate the significance of agency-administered lands or actions in maintaining those species.
- For those species where agency-administered lands or actions have a significant effect on their status, manage the habitat to conserve the species by the following means.
- Include candidate [and sensitive] species as priority species in land use plans.
- Develop and implement area-wide and/or site-specific management plans for candidate [and sensitive] species that include specific habitat and population management objectives designed for recovery, as well as the management strategies necessary to meet those objectives.
- Ensure that BLM activities that affect the habitat of candidate [and sensitive] species

are carried out in a manner consistent with the objectives for those species.

- Monitor populations and habitats of candidate [and sensitive] species to determine whether management objectives are being met.

The BLM has made a “No Affect” determination for all the listed, proposed, or candidate species identified by the U.S. Fish and Wildlife Service as potentially occurring in Sandoval County, New Mexico. No current or potential habitat exists in the national monument to support these species.

Neither does the monument contain known critical or limiting habitat for special-status wildlife species. However, the BLM has identified 13 sensitive species as potentially occurring or having suitable habitat within the Decision Area (refer to Chapter 3). The BLM will manage these species in accordance with the agency’s 6840 Manual. Agency staff will reevaluate the Decision Area (or Planning Area, if inholdings and/or edgeholding are acquired) for special-status species as the T&E species list for Sandoval County is updated.

## **Vegetation and Woodland Management**

Where needed, vegetation and woodland treatments will consist of prescribed fire, mechanical methods, physical removal of excess vegetation, and chemical methods. The BLM will follow BLM Best Management Practices (BMPs) for vegetation treatment methods (refer to Appendix C). Some treatments may need to be combined with others for the best results, and some areas may need to be treated repeatedly to achieve the desired results.

During development of this RMP/EIS, the BLM considered the Healthy Forest Restoration Act as part of the agency's authorization for implementing hazardous fuels (vegetation management) projects. Any of these projects that were implemented in the Decision Area/Planning Area would not meet the criteria of the act (Healthy Forest Initiative, and Healthy Forest Restoration Act, Interim Field Guide, 2004).

## **Visual Resources**

Both the Federal Land Policy and Management Act and the National Environmental Policy Act require that federal (public) lands be managed so as to protect the quality of the scenic values. Presidential Proclamation 7394 created the Ka-sha-Katuwe Tent Rock National Monument under the Antiquities Act of 1906 (34 Stat. 225, 16 U.S.C. 432) to protect the complex landscape and spectacular geologic scenery. BLM Manual 8400 is the agency's guide for managing visual resources. It states that the BLM has the basic stewardship responsibilities to identify and protect visual values on federal (public) lands, and that visual resource management is a management responsibility shared by all resource programs. BLM Manual Handbooks H-8410-1 (Visual Resource Inventory) and H-8431-1 (Visual Resource Contrast Rating) also provide guidance.

## **Wilderness or Wilderness Study Areas**

None of these areas lies within or adjacent to the Decision Area. However, the Santa Fe National Forest's Dome Wilderness and the National Park Service's Bandelier Wilderness adjoin the north

edgeholding property (part of the Planning Area). None of these special areas is expected to affect the others' resource values.

## **Wildlife**

Executive Order 13186 (2001) directs federal agencies to "... promote the conservation of migratory bird populations ...", and to "... support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable adverse impacts on migratory bird resources when conducting agency actions." Therefore it is important that the BLM provide adequate habitat for these bird species.

## **RESOURCE PROGRAM GOALS AND OBJECTIVES**

### **Access and Transportation**

The BLM's goals in managing access and transportation are (1) to promote the safety of all users of the public lands and (2) minimize the conflicts between the various users of those lands. To meet these goals, the agency designates all roads on public land in one of the following three categories: open, closed, or limited (open for limited use only). The agency uses the following criteria when placing roads into one of the three categories.

- In designating roads, the BLM considers the protection of resources such as valuable wildlife habitat, cultural resource values, traditional cultural properties, watershed, and recreational values.
- When duplicate or multiple roads lead to the same location on public lands, the agency considers closing and rehabilitating at least one of these roads to deter use and protect the watershed and other resources.
- The agency considers limited use on roads where (1) trespassing on non-public land would be encouraged by an open designation; or (2) the road crosses non-public land and is needed for administrative purposes, emergency rescue or fire, and no other open roads exist nearby.



- The road serves as important access to facilities, recreational opportunities, or areas needed for program administration.
- The road can be reasonably patrolled and maintained.
- The road is reasonably located.
- The road generally complies with resources management objectives.
- Roads used for access under existing livestock grazing leases or other authorization will not be restricted.

### **American Indian Uses and Traditional Cultural Practices**

The BLM 8120 Manual specifies a number of laws, executive orders, presidential memoranda, and secretarial orders that require government-to-government consultation regarding cultural, historical, and religious concerns of American Indians. Under these authorities the BLM seeks to ensure that tribal issues and concerns are given legally adequate consideration during decision-making. The agency is committed to protect sensitive information relating to tribal concerns, and to foster good working relationships with the tribes. Presidential Proclamation 7394 emphasizes the historical connection of the Ka-sha-Katuwe Tent Rocks National Monument with the Pueblo de Cochiti and places special emphasis on furthering the purposes of the American Indian Religious Freedom Act.

### **Cultural Resources**

The goals of the BLM's cultural resources program are defined in BLM Manual 8100. Managing cultural resources is viewed as an integrated system of identifying and evaluating cultural resources, deciding on their appropriate uses, and administering them accordingly. The objectives are as follows.

- Respond in a legally sufficient and professional manner to the legal authorities concerning historic preservation and cultural resource protection, and to the principles of multiple use.
- Recognize potential public and scientific uses of cultural resources on public lands, managing the lands and cultural resources so

that these uses and values are appropriately protected.

- Contribute to land use planning and multiple use management in ways that (1) make optimum use of the thousands of years of land use history inherent in cultural resource information, and (2) safeguard opportunities for achieving appropriate uses of cultural resources.
- Protect and preserve in place representative examples of the full array of cultural resources on public lands for the benefit of scientific and public use by present and future generations.
- Ensure that proposed land uses avoid inadvertent damage to federal and nonfederal cultural resources.
- Further the goals of the Department of Interior and BLM Strategic Plan, and the Government Performance and Results Act.

In describing the elements to be protected within the National Monument, the Presidential proclamation places special emphasis on the remnants of human history scattered throughout the monument.

### **Fire Management**

Under the *Albuquerque Field Office Fire Management Plan*, the monument is located in Fire Management Unit (FMU) B4. In the monument, under the fire management strategy developed for FMU B4 (Appropriate Management Response), wildland fires will be managed in accordance with management objectives, based on current conditions and fire location. The goals of this strategy are (1) to prevent wildland fires from spreading to private lands, cultural resources, or improvements on BLM public land and other agency land, and (2) to protect recreational users and firefighters.

### **Livestock Grazing**

The BLM's goals in permitting livestock grazing on public land, as stated in the Code of Federal Regulations (CFR), Title 43, Part 4100.0-2, are as follows.

- Promote healthy, sustainable rangeland ecosystems.
- Accelerate the restoration and improvement of public rangelands to properly functioning condition.
- Promote the orderly use, improvement and development of the public lands.
- Provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy rangelands.
- Establish efficient and effective administration of grazing on public rangelands.

Livestock grazing must be achieved in a manner consistent with land use plans, the principles of multiple use and sustained yield, environmental values, economic and other objectives stated at 43 CFR 1600, Subpart 1610; the Taylor Grazing Act of June 28, 1934, as amended (Title 43 of the U.S. Code, Chapter 315); and Section 102 of the Federal Land Policy and Management Act of 1976 (43 USC 1740).

### **Paleontology**

Paleontological resources are of concern and require protection. Within the Planning Area boundaries are federal, state and private lands with the potential for such resources. The BLM's management goal for any of these resources that may exist in the area is to provide a consistent and comprehensive approach in identification, evaluation, protection and use. Any ground-disturbing activities on public land in the Planning Area will be considered on a case-by-case basis for the need to mitigate potential impacts.

### **Public Land Health**

Objectives for public land health are found at 43 CFR 4180.1, which mandates that the following conditions exist.

- Watersheds are in—or are making significant progress toward—properly functioning physical condition (including their upland, riparian-wetland, and aquatic components).

- The soil and plant conditions support infiltration, soil moisture storage, and the release of water in balance with climate and land-form.
- The soil and plant conditions maintain or improve water quality, water quantity, and timing and duration of flow.
- Ecological processes—including the hydrologic cycle, nutrient cycle, and energy flow—are maintained, or there is significant progress toward their attainment, to support healthy biotic populations and communities.

### **Recreational Uses**

The management goals for the BLM's outdoor recreation program are as follows.

- Provide a broad spectrum of resource-dependent recreational opportunities to meet public needs and demands;
- Foster agency-wide efforts to improve services to the visiting public;
- Maintain high-quality recreation facilities to meet public needs and enhance the image of the agency;
- Improve public understanding and support by effectively communicating the agency's mission of multiple use management to visitors.

For the Kasha-Katuwe Tent Rocks National Monument, the following additional objectives apply. Through the two Cooperative Agreements between the Pueblo de Cochiti and the BLM, the two entities strive to achieve the following.

- Enhance the manageability of the monument;
- Provide for resource protection, visitor health and safety;
- Provide outstanding customer service for visitors while controlling visitor use;
- Provide for economic opportunity through employment and services;
- Ensure continuity of traditional tribal practices; and
- Maintain tranquility for the Pueblo de Cochiti.

## **Riparian Areas**

The management goals for riparian areas are to maintain, restore, improve, protect, and expand riparian-wetlands areas for their productivity, biological diversity, and sustainability so they are in properly functioning condition. These goals were established in the *Environmental Impact Statement for Riparian and Aquatic Habitat Management Plan for the Albuquerque Field Office* (USDI, BLM 2000).

Within the BLM's Land Use Planning Handbook H-1601 [Appendix C, p. 2 I.B, Soil and Water (Land Use Plan Decisions)], the agency is to "Identify watersheds that may need special protection from the standpoint of human health concerns, aquatic ecosystem health, or other public uses. For riparian areas, identify desired width/depth ratios, streambank conditions, channel substrate conditions, and large woody material characteristics."

## **Soil and Water Resources**

The management objectives for the water and soils resource programs are as follows.

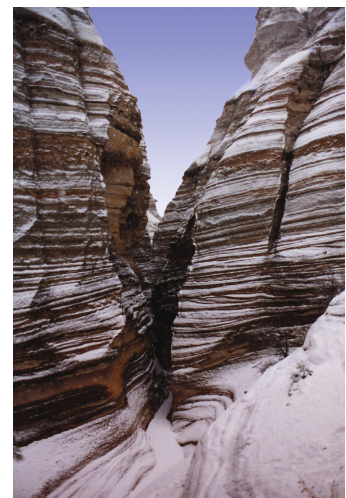
- Protect, maintain, or improve the quality of the soil, water and air resources and watershed values associated with the public lands, including natural site productivity, air quality, and surface and ground water quality, quantity, and timing.
- Prevent deterioration of soil, air quality, and watershed conditions where technically and economically feasible, and to rehabilitate areas in which accelerated erosion and runoff have resulted in unacceptable resource conditions.
- Prevent or minimize the threat to public health and safety, damages to natural site characteristics, or economic losses due to floods, sedimentation, decreased water and air quality, or accelerated runoff and erosion.
- Prevent impairment of soil productivity due to accelerated soil loss or physical or chemical degradation of the soil resource.

- Ensure that BLM management actions and objectives are consistent with soil resource capabilities.
- Maintain or improve surface and ground water quality consistent with existing and anticipated uses and applicable state and federal water quality standards.
- Minimize the harmful consequences of overland flow and surface runoff on, or arising from, BLM-administered lands.
- Provide for the physical and legal availability of water to facilitate authorized uses of the public lands.

## **Unique Geologic Features**

The geologic features within the Planning and Decision Areas have special value for viewing. The unique geologic features (some of which include "tents") exist on 172.6 acres of federal land and 196.5 acres of private land in the Decision Area, as well as on 903.4 acres of private land in the Cañada de Cochiti property proposed for acquisition under Alternatives B and C (refer to Map 5 in the map section). The BLM's management goal is to protect these important, environmentally sensitive geologic resources in their natural condition (subject to ecological processes) while allowing recreation, scientific research and collection, and the development of mineral resources. [Note: Because the 4,124 acres of federal land within the Decision Area have been withdrawn from mineral entry, only the minerals beneath the private land (757 acres) or state land (521 acres) could be developed.]

The BLM will develop appropriate interpretive materials (e.g., signs, plaques, brochures) to explain the special geologic features of the area, such as tents, faults,



*Snow emphasizes the layering on the cone walls.*

and flows. The agency will allow scientific collection and research only by an accredited university or other organization under permit. Permits will be issued only in the areas determined to be the least susceptible to impacts, excluding those areas composed of the “tents.” When proposals are submitted for scientific research and collection in the Planning Area, the BLM will (1) evaluate the proposals and permit applications, (2) develop appropriate stipulations for geological resource protection, and (3) conduct compliance inspections. If the inspections indicate that any study is unduly and unnecessarily degrading the natural landscape within the Planning Area, the agency will severely limit or eliminate study in affected areas.

### **Vegetation**

BLM Handbook H-1601 (Land Use Planning) states [Appendix C, p. 3, Section C, Vegetation (Land Use Plan Decisions)] that the agency’s goal for vegetation is to “Identify desired future conditions for vegetative resources, including the desired mix of vegetative types, structural stages, and landscape and riparian functions, and provide for native plant, fish, and wildlife habitats. Identify the actions and area wide use restrictions needed to achieve desired vegetative conditions.”

The objectives of vegetation treatments are as follows.

- Reduce the risk of hazardous vegetative fuels to human life and property;
- Reduce the risk or cost of fire suppression in areas of hazardous fuels buildup;
- Achieve other resource objectives;
- Treat lands that are in Fire Regime Condition (FRC) Classes 2 and 3; and
- Maintain lands that are in FRC Class 1.

### **Visual Resources**

The BLM’s overall goal for visual resources is to manage federal lands in a manner that protects scenic (visual) values. The objectives for the Visual Resource Management classes assigned to federal lands in the Planning Area are

as follows. (Additional information is found in Appendix D.)

- Class II—Retain the existing character of the landscape, and prevent changes from use authorizations and management actions that would attract attention. Changes in the landscape should repeat the basic elements of form, line, color and texture found in the predominant natural features of the characteristic landscape.
- Class III—Activities and structures may attract attention but not dominate the view of the casual observer. Changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape.

After inventory of their visual resources, any lands acquired would be placed in one of these two classes, based on (1) the extent of cultural modifications to the landscape, or (2) the need to implement future management actions for resource protection and rehabilitation, or (3) the need to install facilities to accommodate visitor health, safety and customer service needs.

### **Wildlife**

For wildlife, the management goals include those listed below, which are brought forward from the *Final Protection Plan for Tent Rocks, An Area of Critical Environmental Concern* (USDI, BLM 1987). The BLM will manage the Planning Area in the following ways to maintain and improve healthy habitats for wildlife.

- Promote awareness of wildlife values.
- Protect habitat for non-game birds and improve big-game winter habitat.
- Provide water development and rehabilitate grassland parks.

## **DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

### **Alternative**

If BLM managers selected Alternative A (Continuation of Existing Management, or the “No Action” Alternative), the agency’s focus would

be to continue implementing the existing directions and recommended actions for the Decision Area. These directions and actions are contained in the existing guidance, agreements, laws, plans (RMP and ACEC Protection Plan) and policies that (1) are currently in effect, (2) existed before the proclamation that designated the KKTR National Monument, and (3) are in compliance with the proclamation. The BLM recognized the area for its cultural, natural, scenic and recreational values and designated it as an ACEC through the *Rio Puerco Resource Management Plan* to protect, maintain, and enhance these values. Through that RMP, the agency set management objectives and actions to help achieve those objectives.

Under Alternative A, current levels of motorized and non-motorized recreational uses would continue, with no limitation on numbers. Motorized use would continue to be limited to existing roads and trails. Non-motorized recreational use would be allowed to take place throughout the monument and be regulated by rules of conduct published at 43 CFR, Part 8365 and the supplemental rules published in the *Federal Register* on May 10, 1996 (61 FR 92: 21479-483). The BLM would continue to issue Special Recreation Permits to qualified applicants for organized commercial events. The current levels and mix of multiple resource uses and resource condition trends would continue, except for livestock grazing. Methods of management on public lands in the Decision Area would continue as described in the “Continuing Management Guidance” section above, and would be amended only as needed at implementation to comply with the proclamation.

#### **Access and Transportation—**

Approximately 19.16 miles of vehicular transportation routes and 8.66 miles of hiking and livestock trails exist on federal land in the Decision Area. (The mileage of roads and trails on nonfederal land is unknown.) About 18.11 miles of the vehicular routes would be open to public use, with 1.05 miles being open for limited use

only. Of the hiking trails on federal land, 8.26 miles would be open for hiking, equestrian use, and/or research (including a 2.2-mile National Recreation Trail). No additional equestrian trails would be developed under Alternative A. (Refer to Map 6 in the map pocket for road and trail segment locations, and Tables 2-2 and 2-3 below for mileages, status and proposed uses.)

BLM routes existing on federal lands within the Decision Area include 5.9 miles of a collector road (BLM Road 1011), 2.5 miles of resource roads, and 10.76 miles of primitive roads (refer to the Glossary for definitions of these types of roads). No roads would be closed to public use under Alternative A, although .05 mile of a primitive road and 1 mile of a resource road would be open for limited use only. (Miles of road that would be used in areas potentially under Cooperative Management Agreements are unknown.)

**For American Indian Uses and Traditional Practices** under Alternative A, the BLM would follow the practices described above in the section entitled, “Management Guidance Common to All Alternatives.” These practices include (1) close day-to-day consultation with the Pueblo de Cochiti, and (2) consultations with other tribes for (a) actions requiring an Environmental Analysis or Environmental Impact Statement, and (b) any situations that require consultation under the Native American Graves Protection and Repatriation Act.

Under Alternative A, the management practices for **Cultural Resources** described above under “Management Guidance Common to All Alternatives” would be in effect. In addition, the BLM would protect known cultural resources by posting antiquities signs, providing educational brochures, and determining the restoration needs for vandalized petroglyphs. New information about previously unrecorded cultural resources would be developed primarily through inventories conducted in support of other BLM actions.

**TABLE 2-2**  
**STATUS OF ROAD SEGMENTS IN THE DECISION AREA**  
**UNDER THE ALTERNATIVES**

Segment Number <sup>a</sup>	Length (miles)	Type <sup>b</sup>	Status Under Alternatives		
			A	B	C
100	.70	Primitive road	Open	Closed	Open
100A	1.00	Primitive road	Open	Closed	Open
100B	.25	Primitive road	Open	Closed	Closed
100C	.30	Primitive road	Open	Closed	Closed
100D	.10	Primitive road	Open	Closed	Closed
100E	.10	Primitive road	Open	Closed	Closed
100F	.30	Primitive road	Open	Closed	Open
101	.80	Primitive road	Open	Closed	Closed
101A	1.50	Primitive road	Open	Closed	Closed
101B	.20	Primitive road	Open	Closed	Closed
101C	.10	Primitive road	Open	Closed	Closed
102	.90	Primitive road	Open	Limited <sup>c</sup>	Open
102A	.90	Primitive road	Open	Closed	Closed
102B	.90	Primitive road	Open	Closed	Closed
102C	.20	Primitive road	Open	Limited <sup>c</sup>	Open
102D	.10	Primitive road	Open	Limited <sup>c</sup>	Closed
103	.70	Primitive road	Open	Closed <sup>d</sup>	Closed <sup>d</sup>
103A	.20	Primitive road	Open	Closed	Closed
103B	.20	Primitive road	Open	Closed	Closed
103C	.20	Primitive road	Open	Closed	Closed
103D	.30	Primitive road	Open	Closed	Closed
103E	.06	Primitive road	Open	Closed	Closed
104	.50	Primitive road	Open	Closed	Closed
104A	.20	Primitive road	Open	Closed	Closed
105	.05	Primitive road	Limited <sup>c</sup>	Open	Open
106	.10	Resource road	Open	Open	Open
1011 (also known as Forest Service Road 266)	5.90	Collector road	Open <sup>e</sup>	Open <sup>e</sup> — paved to lower parking area	Open <sup>e</sup> — paved to lower parking area
1011A	1.00	Resource road	Limited <sup>c</sup>	Limited <sup>c</sup>	Limited <sup>c</sup>
1011B	1.40	Resource road	Open	Limited <sup>c</sup>	Limited <sup>c</sup>
<b>Total Miles of Roads</b>					
<b>Road Access Designation</b>			<b>Alt. A</b>	<b>Alt. B</b>	<b>Alt. C</b>
Open			18.11	6.05	9.15
Closed			0	9.51	7.61
Limited			1.05	3.60	2.40

Notes: <sup>a</sup> Refer to Maps 6, 7 and 8 (in the map pocket) for segment location.

<sup>b</sup> Refer to the Glossary for a definition of these road types.

<sup>c</sup> Road segment open for limited use only.

<sup>d</sup> Proposal is to convert road segment to foot trail only, for use w/small developed parking area & trailhead @ junction off BLM Road 1011.

<sup>e</sup> Road would have different hours of operation, summer & winter, & be closed seasonally in T. 17 N., R. 4 E., Sec. 30 for fire protection.

TABLE 2-3

**STATUS OF TRAIL SEGMENTS IN THE DECISION AREA  
UNDER THE ALTERNATIVES**

Segment Number <sup>a</sup>	Length (miles)	Current or Past Use	Proposed Use	Status Under Alternatives		
				A	B	C
T1	1.500	National Recreation Trail	Same—hiking	Open	Open	Open
T2	.700	National Recreation Trail	Same—hiking	Open	Open	Open
T3	.400	Recreation trail	Same—hiking	Closed	Closed	Closed
T4	.025	Parking lot trail	Same—hiking	Open	Open	Open
T5	.200	Possibly used for Civilian Conservation Corps camp (1933-42)	Hiking	Open	Closed	Open
T6	.300	Primitive trail—possibly used by livestock	Hiking	Open	Closed	Open
T7	1.100	Pack trail	Hiking & re-search	Open	Closed	Open
T8	1.300	Cañada Camada trail	Hiking	Open <sup>b</sup>	Open <sup>b</sup>	Open <sup>b</sup>
T9	.200	Canyon bottom access—Peralta Canyon	Hiking	Open	Open	Open
T10	.140	Pack trail	Hiking	Open	Closed	Open
L1	.600	Livestock trail	Hiking & equestrian use	Open	Open <sup>c</sup>	Open <sup>c</sup>
L2	.400	Livestock trail	Hiking	Open	Open	Open
L3	1.800	Livestock trail through wash	Hiking & equestrian use	Open <sup>d</sup>	Open <sup>d</sup>	Open <sup>d</sup>
E1	.900	Does not yet exist—proposed new trail	Hiking & equestrian use	Does not exist	Open & develop	Open & develop
<b>Total Miles of Trails</b>						
<b>Trail Access Designation</b>				<b>Alt. A</b>	<b>Alt. B</b>	<b>Alt. C</b>
Open				8.26	8.13 <sup>e</sup>	9.87 <sup>e</sup>
Closed				0.40	2.14	0.40
Limited				0	0	0

Notes: <sup>a</sup> Refer to Maps 6, 7 and 8 (in the map pocket) for segment location.

<sup>b</sup> Authorized—proposal is to improve to standards required under Americans with Disabilities Act.

<sup>c</sup> Proposal is to assess segment for future use as hiking & equestrian trail.

<sup>d</sup> Proposal is to maintain present standard & assess for hiking & equestrian use.

<sup>e</sup> Includes 3.5 miles of hiking trails & .7 mile of road (#103) to be converted to hiking trail, plus .9 mile of a new trail segment (E1) to be developed for hiking & equestrian use.

The BLM has assigned **Fire Management** Regime Condition Classes 2 and 3 to the acreages of federal land shown in Table 2-4. Hazardous fuels (vegetative) treatments would be applied to 610 federal acres within these classes. (Note: Potential treatment areas, which

have slopes of 15 percent or less, are displayed on Map 9. Vegetation on private lands would be treated only if these lands were acquired from willing sellers, or were managed under Cooperative Management Agreements between the BLM and landowners.)

TABLE 2-4

**EXISTING FIRE REGIME CONDITION CLASSES WITHIN THE PLANNING AREA  
(acres)**

Fire Regime Condition Class	BLM	State	Private			Total Acreage
			Inholding	Southwest Edgeholding	Cañada de Cochiti	
2	3,709	514	586	965	8,122	13,896
3	415	7	171	0	1,146	1,739
Total Acreage	4,124	521	757	965	9,268	15,635

**Lands and Realty** would involve a total of approximately 15,635 acres of surface ownership (4,124 federal and 11,511 desirable for acquisition, including 521 state and 10,990 private). The 4,124 acres of federal surface would be managed under decisions outlined in the *Rio Puerco Resource Management Plan*. The other 11,511 acres would be managed by owner decision or, where possible, by Cooperative Management Agreement to provide for some level of public use.

Federal mineral (subsurface) ownership within the Planning Area would include all minerals found beneath 4,564 acres. These minerals would continue to be withdrawn from mineral entry. Beneath 965 acres of the edgeholdings, all minerals would continue to be in federal ownership. The balance of the edgeholdings (9,268 acres) would have split mineral ownership, with gold, silver, and quicksilver (mercury) in federal ownership, and all other minerals owned by the surface owner. (Note: Mineral ownership acreage does not correspond with surface ownership acreage.)

**Livestock Grazing** would no longer be permitted on 4,088 acres of federal rangeland comprising two allotments (refer to Map 10 in the map section). The permits have a total federal grazing preference of 303 animal unit months (AUMs) annually (147 AUMs on the Peralta Allotment and 156 AUMs on the Tent Rocks Allotment).

The following **Recreational Uses** would be allowed within the Decision Area: intensive

visitation (155 acres), dispersed visitation (3,969 acres), semi-primitive motorized travel (1,150 acres), semi-primitive non-motorized travel (1,032 acres), roaded natural travel (1,942 acres); hiking trail travel (8.26 miles); and visitation, fee demonstration site and other facilities (155 acres—refer also to Table 2-5 for information on recreational uses). Visitation numbers for the year 2000 were reported at 14,600 visits. (The records do not indicate the home state or country of the visitors.)

To provide a variety of recreational opportunities within the Decision Area, the BLM has applied the ***Recreation Opportunity Spectrum (ROS) system*** (refer to Appendix E). This system is based on criteria for remoteness, social and managerial setting. Using the system, one of three classes is assigned to a given zone to classify some aspects of the recreational opportunities that may occur there. The classes and zones for Alternative A are shown in Table 2-6 and on Map 11 (in the map section). [Note: The BLM will develop an activity-level plan after managers select an alternative for managing the monument. Specific proposed actions to assist in implementing the following RMP-level decisions and the objectives of the BLM's outdoor recreation program will be identified at that time.]

BLM Road 1011/Forest Road 266 serves as a base to identify a ***“roaded natural” (RN) buffer zone*** of 1,942 acres or 47 percent of the Decision Area. Along this “better than primitive” road and buffer zone, visitors would have a greater opportunity for interaction with other



users, and would be influenced by the sights and sounds of humans and vehicles in a zone where less noise-sensitive developments and use occurred. Primitive recreation (that not dependent on developed facilities and motorized vehicles) would not be as important, but visitors would still have an opportunity to interact with the natural environment.

A “***semi-primitive motorized***” (***SPM***) ***setting*** would be provided on 1,150 acres or 28 percent of the Decision Area. Within this setting, visitors would experience an environment with motorized trails and primitive roads offering more challenge and self-reliance on driving skills. A moderate opportunity would exist for inter-party contact, and site visitor management facilities and controls would be limited and more rustic. Recreational visitation and activities associated with motorized vehicle use would be on a total of 3,092 acres or 75 percent of the Decision Area.

The remaining 1,032 acres or 25 percent of the Decision Area has been zoned to provide a “***semi-primitive non-motorized***” (***SPNM***) ***setting***. Here visitors would have the lowest possibility of encounters or interactions with other visitors in a physical setting that is predominantly natural or appears natural. They would have the opportunity to participate in non-motorized types of recreational activities distant from the sights and sounds associated with motorized vehicles. Here access and travel would be non-motorized on trails or cross-country.

To assist in providing recreational opportunities and access to public land resources while providing protection, the BLM through a previous land use plan designated the 4,124 acres within the Decision Area as a ***limited off-road/off-highway vehicle (ORV/OHV) area***. Under this alternative, motorized vehicle use would continue to be limited to existing roads and trails. On the federal lands within the Decision Area, 19.16 miles of roads have been identified, and 18.11 miles of those would be available for use

by motorized vehicles. Of the total identified, 5.9 miles are classified as “collector roads”, 2.5 as “resource” roads and 10.76 miles as “primitive” roads (refer to the Glossary for definitions). A total of 1.05 miles of “primitive” road would be open for limited use only. No roads have been administratively closed, but use has been discouraged on many, and several receive little or no use because of their poor condition. Only BLM Road 1011/FS Road 266 would be scheduled to receive routine maintenance.

The limited ORV/OHV designation would not apply to ***other modes of transportation*** providing access to the public lands. Mountain bikes and other forms of mechanized travel were not addressed in previous plans. Mountain bike and equestrian use within the Decision Area would continue to be discouraged because of user conflicts and land limitations. Under Alternative A, visitors using mountain bikes would be directed to use only the primary access that traverses the Decision Area, BLM Road 1011/FS Road 266. Equestrian use would continue to be authorized by permit on a case-by-case basis.

In the Decision Area, the BLM would continue to apply ***rules of conduct*** to protect public lands, resources and the public (as established at Title 43 of the Code of Federal Regulations, Subpart 8365). In 1996, supplemental rules established that the occupancy and use of the Decision Area was to occur during the daytime only. The BLM would continue to emphasize ***day-use activities***. Camping and overnight occupancy would be prohibited within the Decision Area. ***Intensive recreational visitation and use*** would occur on approximately 155 acres, including areas near unique geologic features. Within this intensive recreational visitation zone, the BLM has focused on providing recreational facilities and services. Existing facilities would be maintained. The other 3,969 acres would continue to be used for ***dispersed recreation*** with no BLM-built recreational facilities (except as needed for resource protection, visitor health and safety).

**TABLE 2-5**

**ELEMENTS OF RECREATIONAL USE IN THE PLANNING AREA  
UNDER THE ALTERNATIVES**

<b>Element</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Comments</b>
Intensive visitor use area/fee site	155 acres around National Recreation Trail & scenic overlook—existing facilities retained  [Note: Drinking water <u>not</u> available @ monument.]	241 acres around National Recreation Trail & scenic overlook—existing facilities retained  [Note: Drinking water available @ monument.]	280 acres around National Recreation Trail & scenic overlook—existing facilities retained; w/new facilities in NE part of monument [Note: Drinking water available @ monument.]	Day-use visitor facilities & services provided (fee site includes areas w/unique geologic features)
Dispersed visitor use area	3,969 federal acres—BLM would work w/private land-owners to assist in preventing trespass	3,883 federal acres—BLM would work w/private land-owners to provide additional recreation opportunities, & to assist in preventing trespass	3,844 federal acres—BLM would work w/private land-owners to provide additional recreation opportunities, & to assist in preventing trespass	No BLM-built visitor facilities provided (except as needed for resource protection, visitor health & safety)
Collector roads	5.9 miles	5.9 miles	5.9 miles	(Refer to Table 2-2 also.)
Resource roads	2.5 miles	2.5 miles	2.5 miles	(Refer to Table 2-2 also.)
Primitive roads	10.76 miles	1.25 miles	10.76 miles	(Refer to Table 2-2 also.)
Roads open to public use by motorized vehicles	18.11 miles (existing roads)	6.05 miles (designated roads)	9.15 miles (designated roads)—includes alternative access road (1.7 miles) on NE side of monument	
Roads open for limited use only	1.05 miles	3.6 miles	2.4 miles	
Roads closed	0 miles	9.51 miles—includes .7 mile converted to hiking use	7.61 miles	

**TABLE 2-5 (concluded)**

<b>Element</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Comments</b>
Hiking trails	5.86 miles	4.83 miles	6.87 miles	(Refer to Table 2-3 also.)
Hiking/equestrian trails (combined)	2.4 miles	3.3 miles	3.3 miles	(Refer to Table 2-3 also.)
Mountain bike use	Allowed on BLM Road 1011 only*	Same as under Alternative A	Allowed on designated public travel routes	*When open to public use (refer to Table 2-2)
Equestrian use (dispersed)	Authorized by permit on case-by-case basis	Authorized by permit on case-by-case basis, on federal lands south & west of BLM Road 1011	Same as under Alternative A	
Research & educational activities	Authorized by special-use permit on case-by-case basis	Same as under Alternative A	Same as under Alternative A	
Cañada de Cochiti property	Not part of Planning Area	<ul style="list-style-type: none"> <li>• Part of Planning Area (if acquired)</li> <li>• May be closed to general visitation until resources assessed</li> <li>• Guided tours may be provided in interim</li> </ul>	<ul style="list-style-type: none"> <li>• Part of Planning Area (if acquired)</li> <li>• May be closed to general visitation until resources assessed</li> <li>• Guided tours may be provided in interim</li> <li>• May require reservations to limit visitor numbers</li> <li>• BLM to establish photo-monitoring system for resource protection</li> </ul>	

TABLE 2-6

**RECREATION OPPORTUNITY SPECTRUM CLASSIFICATIONS  
FOR THE DECISION AREA UNDER THE ALTERNATIVES**

<b>ROS Class</b>	<b>Alt. A— Acres (% of Area)</b>	<b>Alt. B— Acres (% of Area)</b>	<b>Alt C— Acres (% of Area)</b>	<b>Type of Setting &amp; Visitor Experience</b>
Roaded Natural (RN—buffer zone based around BLM Road 1011/Forest Service Road 266, a “better than primi- tive” road)*	1,942 ac. (47%)	1,942 ac. (47%)	3,317 ac. (80%)	<ul style="list-style-type: none"> <li>• Greater opportunity for interaction w/other users</li> <li>• Influenced by sights &amp; sounds of humans &amp; motorized vehicles</li> <li>• Zone w/less noise-sensitive development &amp; use</li> <li>• Primitive recreation (not dependent on developed facilities &amp; motorized vehicles) not as important</li> <li>• Interaction w/natural environment possible</li> </ul>
Semi-Primitive Motorized (SPM)*	1,150 ac. (28%)	972 ac. (24%)	68 ac. (2%)	<ul style="list-style-type: none"> <li>• Moderate opportunity for inter-party contact</li> <li>• Access &amp; travel on motorized trails &amp; primitive roads (not constructed to engineering standards, unmaintained, w/low volume of traffic)</li> <li>• More challenge &amp; self-reliance on driving skills in vehicles w/high clearance (not primarily intended for highway use)</li> <li>• Visitor management facilities &amp; controls limited, more rustic</li> </ul>
Semi-Primitive Non-Motorized (SPNM)	1,032 ac. (25%)	1,210 ac. (29%)	739 ac. (18%)	<ul style="list-style-type: none"> <li>• Greater opportunity for solitude; lowest possibility of encounters/interactions w/other visitors</li> <li>• Distant from sights &amp; sounds of motorized vehicles</li> <li>• Access &amp; travel non-motorized, on trails or cross-country</li> <li>• Physical setting predominantly natural/natural appearing</li> </ul>
*Total acres available for motorized vehicle use (RN & SPM zones)	3,092 ac. (75%)	2,914 ac. (71%)	3,385 ac. (82%)	

All recreation visitors are expected to obtain a **recreation fee permit**. The area is a **standard amenity fee site** originally authorized by the Omnibus Consolidated Rescissions and Appropriation Act of 1996 (Public Law 104-134). The BLM would continue to collect, retain, and reinvest collected fees at this site. To assist in fee collection and site maintenance, the BLM entered into a **Cooperative Management Agreement with the Pueblo de Cochiti** in 1997. The two parties also established an Inter-Governmental Agreement in 2000 to ensure **public access to the Decision Area** on Tribal Road 92 and BLM Road 1011/FS Road 266. Through an Assistance Agreement with Sandoval County and help from the Cochiti Tribe, the BLM would continue to have this route maintained for public access.

The BLM would continue to require **special-use permits for all research and educational activities**. The agency would evaluate the applications to consider whether (1) the proposed research or educational activity could be permitted in a manner consistent with protecting the Decision Area's resources, and (2) the methods proposed were the minimum needed to achieve the desired research objectives. Requests for exceptions to this process would be considered.

In previous land use plans, the BLM designated the Decision Area as an **Area of Critical Environmental Concern (ACEC)**. ACEC management requires protection to prevent irreparable damage to the identified values. Under Alternative A, the agency would continue to use **interpretive methods** (e.g., signs, brochures, kiosks, and on-the-ground presence) to enable visitors to the Decision Area to understand and appreciate its resources. On-the-ground presence has been enhanced through assistance from the Pueblo de Cochiti under the Cooperative Management Agreement mentioned above, which would continue.

The BLM has completed a partial survey of Section 33, T. 17 N., R. 5 E. that addresses the eastern and southern boundaries of the private inholdings within the monument. The survey has confirmed that the National Recreation Trail is

located on public land. The BLM will continue to (1) post signs informing the public of the existence of the private inholdings, and (2) work with private landowners on issues such as unauthorized visitor use; obtaining permission to enter private land for scientific study; scenic and other easements and land acquisition; fencing and additional signing.

[Note: **Drinking water** is not available at the monument. Under Alternative A, visitors would have to continue to bring their own water or purchase it at the convenience store/gas station located about 7 or 8 miles from the monument.]

**Riparian Areas**—None of these exists on federal lands within the Decision Area. Although 2.05 miles of the Peralta Canyon stream channel lies within the monument boundary (refer to Map 12 in the map section), all water flows there are intermittent, and no true riparian characteristics (e.g., vegetation, wildlife) are present. However, upstream several miles, the stream is intermittent to perennial and contains a population of native cutthroat trout, so it is likely that it was once continuous to the Rio Grande.

Under Alternative A, B or C, the BLM would initiate a riparian development monitoring program to determine the surface and subsurface hydrologic characteristics for the area. The agency would install an enclosure along the channel to determine its potential for natural revegetation. Prescribed fire and herbicides would be used to reduce the competition for water by the existing shrubs. If riparian vegetation or hydrology developed in the future, the agency would pursue a more intense riparian restoration program.

The major components of the riparian monitoring and initial restoration plan would be the following.

- Monitoring the Peralta Canyon stream channel for riparian development. The agency would install the following items.
  - ❖ Alluvial water table wells (on the upper, middle, and lower channel segments);

- ❖ Stream gauge stations (on the upper and lower segments);
- ❖ A 3-acre enclosure along the stream channel.
- Applying prescribed burning to parts of the Peralta Canyon bottom to reduce the cover of shrub species. (This may be followed by herbicide treatment on re-sprouting shrub species.)
- Seeding and planting areas lacking grass and forb species.
- If riparian conditions developed in the future, making additional plantings with cottonwoods, willows, and other riparian plant species.
- Pursuing cooperative agreements with willing landowners to manage riparian-wetland areas located on private inholdings within the monument.

The **Social and Economic Conditions** related to the management of the Decision Area would continue to include part-time employment for three to four persons, and annual income of up to \$28,000 to the Cochiti Pueblo. Some

tourism dollars would help the local and regional economy, although the amount would be small because few tourists stay in the area.

**Unique Geologic Features** are a value identified in the ACEC designation, and the BLM focused on a small part (172.6 acres) of the lands having these values in establishing the Tent Rocks Recreation Area. Interpretation and enjoyment of these features (on 172.6 acres and 1.23 miles of trails) would occur in the Decision Area under Alternative A.

**Vegetation and Woodland Management** would be done as needed in areas that were accessible based on the slope of the land, transportation routes, and land ownership. The BLM would apply vegetation treatments (e.g., prescribed fire or mechanical, chemical or biological methods) to move monument lands toward the desired future condition of Fire Regime Condition Class 1 (refer to Map 9 for the location of potential treatment areas). Though desirable for treatment, some areas would be inaccessible because of their steep slopes, as shown in Table 2-7.

**TABLE 2-7**

**ACRES IN THE PLANNING AREA ACCESSIBLE FOR  
WOODLAND AND VEGETATIVE TREATMENTS**

Land Ownership	Treatable Acres <sup>a, b</sup>		Untreatable Acres	
	FRCC-2	FRCC-3	FRCC-2	FRCC-3
BLM	265	345	3,444	70
State	3	7	511	0
Private				
Inholding	0	171	586	0
Southwest Edgeholding	254	0	711	0
Cañada de Cochiti	716	405	7,406	741
Total Acres	1,238	928	12,658	811

Note: <sup>a</sup> FRCC—Fire Regime Condition Class (refer to the Glossary).

<sup>b</sup> Potential treatment areas are shown on Map 9 for Alternative A.

In applying these treatments, the BLM would use Best Management Practices as defined in

various agency handbooks and manuals cited in the *Fire and Fuels Resource Management Plan*

*Amendment and Environmental Assessment for BLM Lands in New Mexico and Texas* (USDI, BLM 2004—refer to Appendix C for a table taken from that document that lists these practices). The agency would develop Cooperative Management Agreements with nonfederal landowners to follow consistent management practices on their land.

#### **Visual Resources Management Class**

II would continue to guide development on all of the 4,124 federal acres within the Decision Area. If brought under Cooperative Management Agreement(s), nonfederal inholdings and edge-holdings also would be managed under the Class II guidelines. The primary objectives of management under this class are to retain the existing character of the landscape and to prevent changes from authorized uses and management actions that will attract attention.

No **Water Resources** have been developed on federal lands within the Decision Area. A plan exists to develop groundwater for drinking within the Decision Area, although previous attempts to develop this source have been unsuccessful. Groundwater has been developed on private land within the Decision Area, and the BLM would seek a Cooperative Management Agreement to use that water source.

Surface water development consists of two small ponds (dirt tanks) in Section 5 (T. 16 N., R. 5 E.) and Section 31 (T. 17 N., R. 5 E.), and a water collector and tank that are also in Section 31. These water structures are used for domestic livestock and wildlife.

The altered drainage pattern upstream from the visitor area would be renovated so the natural drainage pattern was restored. At present, a small mound of channel bed materials diverts storm flows out of the natural drainage course and sends them toward the parking lots and visitor area. The renovation would reduce the volume of flood water that reached these areas.

**Wildlife Habitat Management** would be part of Decision Area management. The federal portion of 4,319 acres of woodlands and savanna would be managed to continue to pro-

vide habitat for the numbers of species shown in Table 3-13 in Chapter 3. Numbers of species on the federal portion of 246 acres of sideslopes and cliffs are also shown in this table.

#### **Alternative B**

If BLM managers selected Alternative B, the Proposed Action, the agency's focus would be to make resource allocations that would resolve the resource use issues or conflicts and management concerns associated with the monument, while complying with Presidential Proclamation 7394 and current BLM policies, initiatives, and guidance. The agency would more intensively manage recreational use through additional development of facilities for (1) visitor use and enjoyment of the area; (2) resource protection; (3) visitor health and safety needs; (4) meeting land health standards; (5) research and environmental education opportunities that would be in compliance with the proclamation; and (6) protecting American Indian use areas and traditional cultural practices.

The proclamation identified the area as “a remarkable outdoor laboratory, offering an opportunity to observe, study, and experience the geologic processes that shape the natural landscapes, as well as other cultural and biological objects of interest.” It set apart the area known as the Kasha-Katuwe Tent Rocks National Monument and reserved it to protect the objects identified above, on all lands and interest in lands owned or controlled by the United States within the monument boundaries. The federal land and interests in land that were reserved consist of approximately 4,124 surface acres, which is the smallest area compatible with proper care and management of the objects to be protected. The proclamation also includes 4,565 acres of mineral ownership within the prescribed boundary. (Refer to Appendix A for a copy of the proclamation.)

The following resource uses and programs would be managed in the same way under Alternative B as under Alternative A: water resources, and vegetation and woodland management. Only the resources or critical elements discussed below would be managed and/or used

differently under Alternative B than under Alternative A.

#### **Access and Transportation—**

Approximately 19.16 miles of vehicle transportation routes would exist on the Decision Area's federal lands under this alternative. About 6.05 miles of the vehicular routes in the area would be open to public use, 9.51 miles would be closed, and 3.6 miles would be open for limited use only.

Of the 10.27 miles of trails on federal land, about 2.14 miles would be closed and 8.13 miles would be open to hiking and/or equestrian use [including .7 mile of primitive road (#103) converted to a trail, and .9 mile of new trail] under Alternative B. [Refer to Map 7 (in the map pocket) for road and trail segment locations and Tables 2-2 and 2-3 for segment mileages, status and proposed uses.]



*This trail leads from the cool, shaded slot canyon to the sunny Vista Point overlook.*

BLM routes designated on federal lands within the Decision Area would include 5.9 miles of a collector road (BLM Road 1011), 2.5 miles of resource roads (of which 2.4 miles would be open for limited use only), and 1.25 miles of primitive roads (of which 1.2 miles would be open for limited use only—refer to the Glossary for road definitions). (Miles of road that would be used in areas potentially under Cooperative Management Agreements are unknown.)

**For American Indian Uses and Traditional Practices** under Alternative B, the BLM would follow the consultation practices described above for Alternative A. Agency

developments and recreation management policies would be oriented, in part, toward discouraging visitor use in sensitive areas identified by American Indians. In addition, with appropriate advance notice, the BLM would consider brief, temporary closure of all or portions of the monument to ensure privacy for traditional uses.

If the BLM acquired the Cañada de Cochiti private edgeholding, the agency initially would close the property to public entry except access (1) on existing public roads and (2) with prior authorization from the Rio Puerco Field Office Manager. After consultations with potentially affected American Indian tribes, the agency would open the area with appropriate restrictions.

Under Alternative B, the BLM would follow the procedures described above under “Continuing Management Guidance Common to All Alternatives” for **Cultural Resources**. However, more stringent inventory requirements would be in effect, with larger buffers and Class III (intensive) inventory in all questionable cases. For example, the following management measures would apply.

Access and Transportation—All 1.8 miles identified for easement acquisition along BLM Road 1011 have already been inventoried for cultural resources. The agency has inventoried 5.3 miles of roads open to public access. Before any further maintenance was done, the BLM would inventory the remaining .65 miles of “open” roads, as well as 3.6 miles of roads open for limited use only, and 9.51 miles of “closed” roads (which would need to be inventoried before rehabilitation and closure).

Inventory needs for 8.13 miles of “open” trails are discussed below under “Recreation.” Of the 2.14 miles of trails to be closed under Alternative B, .18 miles have been surveyed, leaving 1.96 miles to be surveyed before any rehabilitation work was done.

Lands and Realty—If the BLM acquired the Cañada de Cochiti private edgeholding, the agency initially would close it to public entry except access (1) on existing public roads and



(2) with prior authorization from the Rio Puerco Field Office Manager. This restriction would be lifted after an assessment of cultural resources was made, and measures implemented to mitigate potential adverse effects.

**Recreation**—The BLM would address the secondary effects of recreational use on cultural resources by requiring inventory of expanded buffer areas around recreational developments that would accommodate pedestrian activities such as hiking, picnicking and sightseeing. Cultural resource inventories for parking areas, scenic viewing areas, picnic areas and similar developments would include a 100-meter-wide buffer. For hiking trails, a 30-meter-wide buffer would be inventoried, resulting in examination of a 60-meter-wide corridor. Approximately 1.81 miles of “open” trails have already been inventoried, and survey of the remaining 6.32 miles will be completed by the end of September 2008.

**Vegetation Treatment**—In sensitive settings, these types of treatments would be subject to Class III inventory if the use of fire or any form of surface disturbance was proposed, including off-road vehicle use and dragging of slash. Based on current information, alluvial valley bottoms (soil type 300) and slopes greater than 20 percent are not considered sensitive. Mesa tops and ridge tops are sometimes covered by extensive artifact scatters, which could limit some forms of vegetative treatment.

**Water Resources**—Two water wells are located on inholdings or edgeholdings. If these lands were acquired, the BLM would do cultural resource inventories to ensure that no damage would occur in association with well use or maintenance.

**General**—Aside from the measures described above, no special priority would be given to proactive inventory, protection, or interpretation of cultural resources in the monument. Instead, proposals for proactive cultural resource management projects would be based on an evaluation of the importance of the resource, the nature and immediacy of threats to the resource, public

demand for interpretation, the cost of the proposed remedy, and the availability of funding. Decisions about funding such projects would be made in the context of the need for similar projects throughout the Albuquerque District.

Activities that would involve excavation or collection of cultural materials would be discouraged, and would ordinarily be considered only when such materials faced an immediate threat. Archeological resources within the monument would be available for scientific study that would not involve excavation or collection of cultural materials. Exceptions to this policy would be made only after extensive consultation with all concerned American Indian tribes.

**Fire Management** would conform to the *Resource Management Plan Amendment for Fire and Fuels Management on Public Land in New Mexico and Texas* (USDI, BLM 2004b). Lands in Fire Regime Condition Classes 2 and 3 would be treated to move them toward Class 1 (refer to Map 13 in the map section). Also in accordance with the RMP Amendment, the BLM would use Best Management Practices (refer to Appendix C). Treatments would be prioritized based on the percent slope, FRC Class, access, and ownership of the areas to be treated. Only areas having slopes less than 15 percent (2,166 acres in the Planning Area) would be treated.

**Lands and Realty** would involve approximately 15,635 acres of surface and mineral ownership, including the nonfederal lands recommended for acquisition. In the short-term, surface ownership would be 4,124 acres federal, 521 acres state, and 10,990 acres private. The BLM would manage the 4,124 acres of federal surface under the RMP decisions contained in this document. The other 11,511 acres would be managed by owner decision or, where possible, by Cooperative Management Agreement to provide for some level of public use. If a willing seller was available in the long term, the BLM would seek to (1) acquire the 1,278 nonfederal acres in the monument and (2) recommend acquisition of the edgeholdings to complement management of monument values.

Federal ownership for all minerals beneath the monument would include 4,565 acres. This acreage has been withdrawn from mineral entry, by conditions of the proclamation. (Note: Mineral ownership acreage does not correspond with surface ownership acreage.) As other minerals were acquired within the monument, they would also be withdrawn from mineral entry under the proclamation.

All minerals under the 965 acres of the southwest edgeholding would continue to be in federal ownership. The northern edgeholding (9,268 acres under the Cañada de Cochiti property) would have split mineral ownership, with gold, silver, and quicksilver/mercury in federal ownership and all other minerals owned by the surface holders. Under Alternative B, the BLM would recommend acquisition of these mineral rights along with the surface. If the edgeholdings became a part of the monument, the agency also would recommend that the minerals beneath them be withdrawn.

Under the requirements of Presidential Proclamation 7394, **Livestock Grazing** would be retired from the monument unless it would advance the purposes of the proclamation. Under Alternative B, BLM managers could permit seasonal, short-term, non-renewable opportunities for domestic livestock grazing to meet specific vegetative objectives. This type of temporary authorized use could include integrated weed management (e.g., grazing of saltcedar and other invasive or noxious plants by livestock, intense grazing of downy brome in early spring), grazing to reduce fine fuels, intense livestock presence and supplemental feeding (not rangeland grazing) to produce “hoof impact” and distribute litter and seeds into the disturbed soil surface.

As part of these short-term permits, the agency would specify terms and conditions for grazing on the monument to meet vegetative resource objectives [e.g., number and kind of livestock, period of use, percent allowable use; desired amount of residual vegetation (stubble heights) to be left post-grazing, specified areas for grazing or nonuse for monitoring, herding of animals]. Any proposed grazing studies must improve the knowledge and understanding of the

monument, and sustain the purposes of the proclamation.

Federally owned range improvement projects that could not effectively be converted to monument uses would be removed. Privately owned range improvements would be removed by the permittee or purchased by the BLM, at fair market value, if they could be converted to monument use. Areas closed to grazing would be fenced.

The following **Recreational Uses** would be allowed within the monument: intensive visitor use (241 acres), dispersed visitor use (3,883 acres), semi-primitive motorized use (972 acres), semi-primitive non-motorized use (1,210 acres), roaded natural use (1,942 acres), combined hiking and equestrian trail use (3.3 miles), and designated hiking trail use (4.83 miles). The visitation, fee demonstration site and other facilities are within the intensive use acreage (241 acres—refer to Table 2-5).

For the following recreational elements, BLM management of recreation in the Planning Area under Alternative B would be the same as that applied to the Decision Area under Alternative A.

- Use of the **ROS system** to divide the area into the three visitor experience zones discussed above (with slightly different acreages, as shown in Table 2-6, and on Map 14 in the map section);
- Application of the **rules of conduct** for the protection of public land resources and visitors (as established at 43 CFR 8365);
- **Emphasis on day use** and prohibition of camping or overnight occupancy;
- Management of **intensive visitation and use** on 241 acres around the National Recreation Trail, scenic overlook, and unique geological features;
- Management of **dispersed visitation and use** on the remaining 3,883 acres, with no BLM facilities being built, except as needed for resource protection, visitor health and safety;
- **Collection, retention and reinvestment of collected fees** at this standard amenity site.

- The agency would also *continue the Cooperative Agreement with the Pueblo de Cochiti for assistance* in fee collection;
- Maintenance of BLM Road 1011/FS Road 266 and Tribal Road 92 through the Inter-Governmental Agreement with the Pueblo de Cochiti to allow *continued public access* to and through the Decision Area. The BLM, the pueblo and Sandoval County would be involved in this maintenance;
- Issuance of *Special Recreation Permits* for commercial and noncommercial recreation-related uses (e.g., group activities, commercial recreational tours), and for any other uses for which the agency determines a permit is needed to support the recreation management objectives of the area and serve the public interest;
- Issuance of *special-use permits for all research and educational activities* on a case-by-case basis;
- Use of *interpretive tools* (e.g., signs, kiosks, brochures, websites, and on-the ground presence) to help protect the objects of cultural, biological and geologic interest by enabling visitors to understand and appreciate these resources.

Under Alternative A, *motorized vehicle use* would continue to be limited to existing roads and trails. Under Alternative B, the BLM would change the designation of the monument as an area with “ORV/OHV use limited to existing roads and trails” to “ORV/OHV use limited to designated roads and trails.” This change would reduce the amount of mileage available for public use within the monument, as identified in the “Access and Transportation” section of this alternative. Approximately .7 of a mile of an existing road would be closed to motorized use and converted to pedestrian use. This would add to the existing trail system within the monument that provides access to recreation resources.

*Mountain bikes* and limited forms of motorized transportation (except all-terrain vehicles and dirt bikes) would be allowed on the primary access road (BLM Road 1011/FS Road 266) through the monument when the road was open to public use. *Equestrian use* would be authorized on a case-by-case basis and directed to fed-

eral lands south and west of BLM Road 1011/FS Road 266. BLM Road 1011/FS Road 266 and designated travel routes would be scheduled to receive maintenance.

The BLM would maintain existing *visitor facilities* in the intensive use area, and build new ones as needed for resource protection, and visitor health, safety and convenience. The agency would also work with the owners of the inholdings (in the Decision Area) and edgeholdings (in the Planning Area) to (1) provide additional opportunities where appropriate to view the unique geologic features and scenic values, and expand recreational use of the area, as well as (2) assisting in the prevention of trespass in unwanted areas on nonfederal lands.



*Visitors enjoy lunch at one of the many picnic tables.*

The agency would provide *drinking water* at the monument for visitors. Various alternative methods would be considered, including the following. [Note: Water pipelines would probably be buried adjacent to BLM Road 1011 to reduce surface disturbance.]

1. Drilling a well with a well house that would include treatment facilities, a water pipeline delivery system, a storage tank with at least a 12,000-gallon capacity, and frost-free hydrants;
2. Using an existing well on Pueblo de Cochiti tribal land, state or private land. This would require
  - a) Authorization through agreements, land exchange or acquisition;
  - b) Testing for flow and water quality; and
  - c) Installation of water pipelines.
3. Selling bottled water.

The agency would also *continue the Cooperative Management Agreement with the Pueblo de Cochiti for assistance* in providing an on-the-ground presence, until further resource studies are completed. The BLM may close the Cañada de Cochiti property to general visitation, providing *guided tours* in the interim.

**Riparian Areas**—Under Alternative B (Proposed Action), the BLM would attempt to acquire the state and private inholdings in the Planning Area. If the acquisitions were completed, the agency would manage an additional 1.62 miles of the Peralta Canyon stream channel, along with three windmill wells and less than 5 additional acres (refer to Map 12 in the map section).

Under this alternative, the BLM would establish a program to monitor the magnitudes and durations of the flows through 2.05 miles of Peralta Canyon on federal land in the monument using the following means: (1) alluvial water table wells (in the upper, middle and lower portions), and (2) stream gage stations (in the upper and low portions). This program would be part of a larger study to determine the whether development of a riparian area along the Peralta Canyon stream channel was possible.

Alongside the channel, the BLM would develop a 3-acre enclosure on federal land to monitor vegetation supported by available water during the runoff season. This would allow agency staff to determine if riparian vegetation may have existed previously over a period of time, and if such vegetation would establish along Peralta Wash through study efforts.

Additional measures would include the following: (1) prescribed fires for parts of the Peralta Canyon stream channel to reduce the cover of shrub species; (2) possibly to be followed by herbicide treatment of re-sprouting shrub species; (3) seeding of areas currently lacking in grass and forb species; and, (4) if riparian conditions developed, making other plantings of cottonwood, willow and other species.

If riparian vegetation became established in the stream channel, and the private inholdings were

acquired, the entire riparian habitat within the canyon inside the monument (including that on private lands) would be managed as a riparian area. The BLM would then assess the area for properly functioning condition. As studies were ongoing, study areas would be designated as off limits to recreational uses such as hiking and horseback riding alongside the wash to avoid damage to this habitat. If inholdings were not acquired, the agency would pursue Cooperative Management Agreements with willing landowners to protect developed riparian areas located on private land.

(Note: BLM resource specialists have developed a separate Riparian Development Plan for this possible riparian area in the Peralta Canyon stream channel. This document is on file at the Rio Puerco Field Office.)

**The Social and Economic Conditions** attributable to the management of the monument would include part-time employment for 4 to 5 persons and income to the Cochiti Pueblo amounting to \$25,000 to \$45,000 per year. Some tourism dollars would be spent in the local and regional economy. The size of the area does not encourage long stays and the percentage of out-of-state visitors is low (less than 25 percent in 2002), so this tourism income would be small. Acquired lands would add to the county's entitlement acres, increasing the federal government's payment to Sandoval County in lieu of taxes. (In 2004, this payment to Sandoval County amounted to \$1.34 per entitlement acre.)

**Unique Geologic Features** are a value identified in the ACEC designation. The BLM's Tent Rocks Recreation Area focused on a small part (172.6 acres) of the lands having these values. Interpretation and enjoyment of these features would continue in the monument. If the acquisitions recommended under Alternative B became part of the monument, the area with these features would be expanded to cover 1,272.5 acres, with 1.23 miles of trails (the same mileage as under Alternative A).

**Visual Resource Management (VRM)** Classes II and III would be used to guide management actions on the public lands within the

Planning Area. In areas of concentrated recreational use and along the existing primary vehicular route (BLM Road 1011) through the monument, VRM Class III would be assigned to 1,094 acres that encompass the immediate foreground (¼ mile) surrounding the developed facilities (refer to Map 15). On the Class III lands, activities and structures would attract attention but not dominate the view of the casual observer. Changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape. VRM Class II would be assigned to 3,030 acres of remaining public lands, where the intent would be to retain the existing character of the landscape by keeping implementation actions from attracting attention.

The BLM would use a contrast rating process to determine a level of contrast acceptable under the assigned VRM class objectives. The contrasts would be measured by comparing the proposed project's basic design elements of form, line, color and texture with those same elements found in the landform, water, vegetative and structural features of the surrounding landscape as observed from considered key observation points. Design principles, techniques and mitigation measures would be applied to minimize visual impacts.

The degrees of contrast are as follows.

- None—The element contrast is not visible or perceived.
- Weak—The element contrast can be seen but does not attract attention.
- Moderate—The element contrast begins to attract attention and dominate the characteristic landscape.
- Strong—The element contrast demands attention, will not be overlooked.

Acquired lands would be inventoried and placed in one of these two classes based on the extent of cultural modifications to the landscape, the need to implement future management actions or install facilities to accommodate customer services, or the need for resource protection and rehabilitation.

Under Alternative B or C, the BLM would implement the following actions to maintain and enhance healthy habitats for **Wildlife** populations within the boundaries of the Planning Area.

- Conduct a complete biotic survey of the area to determine the plant and animal species present, including vascular and non-vascular plants; soil macro- and micro-invertebrates for each soil type; arthropods, mollusks, and crustaceans; and miscellaneous other invertebrates as they become known.
- Conduct breeding bird surveys on a regular and repeating schedule. If populations decline, develop a mitigation plan in coordination with the U.S. Fish & Wildlife Service and the New Mexico Department of Game & Fish (NMDG&F).
- Survey the stream bottom of Peralta Canyon every 3 years for evidence of riparian and wetland development. If such development occurs, create a riparian development plan with specific actions to protect and promote it (based on best science). This will also be applied to any springs or seeps discovered.
- Designate road segments 104 and 104A in T. 17 N., R. 4 E., Section 31 as open for limited use only (refer to Table 2-2, and Map 6 in the map pocket).
- Fence the south and west boundaries of the monument and any acquired lands to prevent damage to big-game winter habitat from trespass livestock.
- Coordinate wildlife management activities with the NMDG&F (including but not limited to game species management, hunting regulation; and special-status species management).

### **Alternative C**

If BLM managers selected Alternative C, Adaptive Management, the agency's focus would be to make resource allocations that would resolve the resource use issues or conflicts and management concerns associated with the monument, while complying with Presidential

Proclamation 7394 and current BLM policies, initiatives, and guidance. Under this alternative, the BLM would seek to acquire edgeholding lands with resource values similar or complementary to those of the monument that would enable the agency to more effectively manage the values of the monument.

Also under Alternative C, the BLM would monitor uses for which adjustments would likely be needed to ensure land health, resource protection, and safe and enjoyable resource use. The area has already lost some of its attractiveness and enjoyment for local users because its designation as a national monument has increased visitation from 8,600 users in 1998 to over 50,000 users in 2004. The need to change the management prescriptions would be based on monitoring visitor satisfaction, key species, natural resource conditions that indicated land health, and the condition of objects for which the monument was designated.

Several resource uses and programs would be managed in the same way under Alternative C as under Alternative B, including: fire management; lands and realty (including mineral ownership); livestock grazing; unique geologic features; vegetation and woodland management; water resources; and wildlife habitat management.

**Access and Transportation**—About 9.15 miles of the vehicular routes in the Decision Area would be open to public use, with 2.4 miles being open for limited use only, and 7.61 miles closed. A total of 9.87 miles of trails on federal land would be open for hiking, equestrian use, and/or research (4.2 miles of foot trails only, and 5.6 miles of combined foot and equestrian trails), with .4 miles of trails closed under Alternative C. [Refer to Map 8 (in the map pocket) for the location of road and trail segments, and to Tables 2-2 and 2-3 for segment mileages, status and proposed uses.]

BLM routes designated on federal lands within the Decision Area would include 5.9 miles of a collector road (BLM Road 1011), 2.5 miles of resource roads (of which 2.4 miles would be open for limited use only), and 10.76 miles of

primitive roads (of which .25 mile would be open). (Refer to the Glossary for definitions of these types of roads.) (Miles of road that would be used in areas potentially under Cooperative Management Agreements are unknown.)

Visitor use would be monitored to determine the need for an expanded road system. About 1.7 miles of new road easement would be negotiated on the northeast side of the monument (across the Cañada de Cochiti parcel) for an alternative access route into the monument. The route would extend through the monument on primitive roads, including approximately .4 mile of new construction. The new access route would connect with BLM Road 1011.

**American Indian Uses and Traditional Cultural Practices**—Some developments proposed under Alternative C could affect these uses by reducing privacy. However, under this alternative BLM recreation management policies would be oriented, in part, toward discouraging visitor use in sensitive areas identified by American Indians. With respect to traditional uses, other aspects of managing the Planning Area would be the same under Alternative C as under Alternative B.

Under Alternative C, **Cultural Resources** would be managed as described above under Alternative B. Only the lengths of roads and trails to be inventoried would be different.

The following **Recreational Uses** would be allowed within the monument: intensive visitor use (280 acres), dispersed visitor use (3,844 acres), semi-primitive motorized use (68 acres), semi-primitive non-motorized use (739 acres), roaded natural use (3,317 acres); hiking and equestrian use on common trails (3.3 miles) and designated hiking trail use (6.57 miles). The visitation, fee demonstration site and other facilities would continue in the intensive use area (280 acres—refer to Table 2-5).

For the following elements, BLM management of recreation in the Planning Area under this alternative would be the same as that applied to the Decision Area under Alternative A.

- Use of the **ROS system** to divide the area into the three visitor experience zones discussed above (with slightly different acreages, as shown in Table 2-6, and on Map 16 in the map section);
- Application of the **rules of conduct** for the protection of public land resources and visitors (as established at 43 CFR 8365);
- **Emphasis on day use** and prohibition of camping or overnight occupancy;
- **Collection, retention and reinvestment of collected fees** at this standard amenity site. All visitors would continue to be required to obtain a recreation fee permit. The agency would also **continue the Cooperative Agreement with the Pueblo de Cochiti for assistance** in fee collection;
- Maintenance of BLM Road 1011/FS Road 266 and Tribal Road 92 through the Inter-Governmental Agreement with the Pueblo de Cochiti to allow **continued public access** to and through the Decision Area. The BLM, the pueblo and Sandoval County would be involved in this maintenance;
- Issuance of **Special Recreation Permits** for commercial and noncommercial recreation-related uses (e.g., group activities, commercial recreational tours), and for any other uses for which the agency determines a permit is needed to support the recreation management objectives of the area and serve the public interest;
- Issuance of **special-use permits for all research and educational activities** on a case-by-case basis;
- Use of **interpretive tools** (e.g., signs, kiosks, brochures, websites, and on-the ground presence) to help protect the objects of cultural, biological and geologic interest by enabling visitors to understand and appreciate these resources. The agency would also **continue the Cooperative Management Agreement with the Pueblo de Cochiti for assistance** in providing an on-the-ground presence.
- Providing **drinking water** at the monument for visitors.

Under Alternative A, **motorized vehicle use** in the monument would continue to be limited to

**existing** roads and trails. Under Alternative C, the BLM would designate the 4,124 acres of federal land as an area where ORV/OHV use is limited to designated roads and trails. Of the identified 19 miles of the existing road system, approximately 9.2 miles would be designated for public use with motorized vehicles. To enhance **recreation access** to the northeast part of the monument, alternative public road access would be considered when needed to help disperse visitation, provide visitor service and a quality recreation experience. **Mountain bikes** and other forms of mechanized travel would be prohibited off designated travel routes open to the public (i.e., BLM Road 1011 and the new access road proposed to enter the northeast corner of the monument—refer to Map 8 in the map pocket). No trails would be designated for motorized vehicle use. **Equestrian use** would be authorized on a case-by-case basis. BLM Road 1011/FS Road 266, along with other designated roads in the system, would be scheduled for maintenance to protect resources and provide for travelers' safety.

**Intensive recreational visitation and use** would occur on approximately on 280 acres around the National Recreation Trail, scenic overlook, unique geologic features, and additional acres associated with proposed new facility development in the northeastern part of the monument. The possibility of opening an **additional eastern access route** (refer to Map 8 in the map pocket) as a means to disperse visitor use over a larger area has been considered and could be implemented without additional planning or NEPA analysis if Alternative C was selected. Approximately 1.7 miles of new road easement would be negotiated on the northeast side of the monument and across the Cañada de Cochiti property for an alternative access road. This would help to disperse visitors in a larger area, lessen the impacts from the existing crowded environs, and reduce the potential for increased inter-party contact. Other options would also be considered, such as requiring reservations to limit visitor numbers, closing the Cañada de Cochiti property to general visitation until further resource studies were completed, or providing guided tours. Within the intensive recreational visitation zones, the BLM would focus on

providing facilities and services to the visiting public for health, safety and resource protection. The remaining 3,844 acres of the monument would be used for *dispersed recreational use* with no BLM-built facilities except those needed for resource protection or visitor health and safety.

As part of an adaptive management approach, Alternative C would include a **5-year monitoring and evaluation process**. Two to five photo-monitoring sites would be established within the recreational intensive use area (refer to Map 3 in Chapter 1). These sites would be used to produce a photographic record to be accompanied by a narrative description of the natural resource conditions at these sites twice a year (before Memorial Day and after Labor Day) for 5 years. To determine how the number of visitors and management practices were affecting natural resource condition, this data would be used with that on visitor counts, visitor satisfaction, and climate/precipitation (recorded at least monthly), plus facility and management strategy changes. The results of this monitoring would support management changes required to achieve the recreation objective of maximizing visitor use and satisfaction while minimizing natural resource damage and degradation.

**Riparian Areas**—Under Alternative C, the BLM would attempt to acquire the edgeholdings on the southwest and northern boundaries of the Decision Area. If the edgeholdings were acquired, the agency would manage an additional 1.7 miles of the Peralta Canyon stream channel and a developed spring (refer to Map 12). Under Alternative C, the potential riparian area [(if acquired or managed cooperatively with the landowner(s))] would be managed in the same way as under Alternative B.

**The Social and Economic Conditions** attributable to the management of the monument under Alternative C would be the same as those under Alternative B. However, the acquired lands would add to the monument (entitlement) acres and would add to the federal government's payment to Sandoval County in lieu of taxes. The county's 2004 payment amounted to \$1.34 per entitlement acre. At this rate, the addition of

all recommended edgeholding acres would have the potential to increase the payment by approximately \$15,425.

### **Visual Resources Management**

Classes II and III would be used to guide development on public lands within the monument. In addition to the 1,094 acres of federal land assigned VRM Class III status under Alternative B, VRM Class III would be assigned to an additional 1,026 acres that make up the newly built vehicle transportation access routes and parking facilities under Alternative C, for a total of 2,120 acres (refer to Map 17 in the map section). On these Class III lands, activities and structures would attract attention but not dominate the view of the casual observer. Changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape. VRM Class II would be assigned to 2,016 acres of remaining federal land, where the intent would be to retain the existing character of the landscape by keeping implementation actions from attracting attention. The BLM would use the same contrast rating process described above under Alternative B to assess projects on a case-by-case basis.

Acquired lands would be inventoried and placed in one of these two classes based on (1) the extent of cultural modifications to the landscape, (2) the need to implement future management actions for resource protection and rehabilitation, (3) the need to install facilities to accommodate visitor health, safety and customer services, or (4) the need to protect and/or rehabilitate resources.

### **ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL**

#### **Leaving the Area as a Pristine and Peaceful Environment**

This alternative would require the removal of existing facilities and the restriction of visitor use in an attempt to return this area to a pristine appearance and provide a peaceful environment. This alternative would not be feasible or prudent. The federal government already has made a substantial investment in providing facilities



and services to accommodate public use, visitor health and safety, and resource protection. Therefore, this alternative was dismissed from further consideration.

### **Maximizing Recreational Use of the Monument**

Emphasizing recreation over protection of the biological, scientific and historical objects of interest within the monument boundaries would not be a reasonable alternative. Such use would lead to increased user days and more user conflicts throughout the monument, which would lead to additional impacts on the resources for which the monument was designated. This area

is a complex landscape with spectacular geologic scenery that has been a focal point for visitors for many years. These resources would not be protected as required by the proclamation if recreational use of the monument was maximized. Therefore, this alternative also was dismissed from further consideration.

## **SUMMARY OF IMPACTS**

Table 2-8 provides a summary of the impacts to the monument's uses and resources that would occur from implementation of the three alternatives analyzed in this RMP/EIS. More detailed impact analysis can be found in Chapter 4.



TABLE 2-8

## ALTERNATIVE COMPARISON AND SUMMARY OF IMPACTS BY ISSUE

ISSUE/Element or Factor	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
<b>Issue 1: Land Tenure Adjustment</b> Easement Acquisition	1.05 miles for access through the monument, BLM Road 1011.	Same as Alternative A, except acquisition of inholdings would eliminate the need for this easement.	Same as Alternative B
Cooperative Management Agreements (CMAs)	Monument management on 1,278 acres of inholdings would be more effective with CMAs in place.	Replaced by acquisition from willing sellers.	Same as Alternative B
Land Acquisition Inholdings—surface acres 1,278; nonfederal mineral acres 837 Edgeholdings—surface acres 10,233; nonfederal minerals acres 9,268		Acquire for resource protection and effective monument management to: Reduce recreation visitor trespass Reduce potential for visual intrusions	Same as Alternative B
<b>Issue 2: Access &amp; Transportation</b>			
Visitor use (visitors/year)	150,000	50,000	50,000
Intensive recreation use (acres)	155	241	280
Roaded Natural Areas (acres)	1,942	1,942	3,317
Semi-Primitive Motorized (acres)	1,150	972	68
Semi-Primitive Non-Motorized (acres)	1,032	1,210	739
Roads “Open” (miles)	18.11	6.05	9.15
Roads open for “Limited” use (miles)	1.05	3.60	2.40
Roads “Closed” (miles)	0.00	9.51	7.61
Trails “Open” (miles)	8.26	7.92	9.66
Trails “Closed” (miles)	0.40	2.14	0.40
ORV/OHV Area Designations (acres) Open Closed Limited	0 0 4,124*	0 0 4,124*	0 0 4,124*
Access to Highly Valued Traditional Use Area	*(Limited to existing roads and trails) Intrusion of 5.9 miles of improved road would cause loss of privacy.	*(Limited to designated roads and trails) Intrusion of unimproved road access would be reduced by an estimated 3 to 5 miles.	*(Limited to designated roads and trails) Intrusion of new access would create loss of privacy in highly valued traditional use area.
Trail Access	8.26 miles—would create the potential for damage & erosion to 175.7 acres of unique geologic features.	7.92 miles—would create the potential for damage & erosion to 369.2 acres of unique geologic features.	9.66 miles—would create the potential for damage & erosion to 369.2 acres of unique geologic features.
Road Easement	1.05 miles—would be acquired for legal access through the monument.	Same as Alternative A, except acquisition of inholdings would eliminate the need for this easement.	Same as Alternative B
Public Access (total road miles)	18.11	9.65	11.55
Limited Access (total road miles)	1.05	3.60	2.40
Motorized Access (acres)	2,892	2,914	3,385
Dispersed Use Access (acres)	1,032	1,210	739

ISSUE/Element or Factor	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
Public Trails Access (miles)	8.26	7.92	9.66
Watershed Stability & Water Quality (direct & indirect impacts)	19.16 miles of road	9.65 miles of road. Watershed stability & water quality would improve.	11.55 miles of road. Watershed stability & water quality would improve.
Wildlife Habitat Fragmentation (per square mile of federal land)	An average of approximately 2.98 miles of road & 1.28 miles of trails.	An average of approximately 1.50 miles of road & 1.23 miles of trails.	An average of approximately 1.79 miles of road & 1.50 miles of trails.
<b>Issue 3—Recreational Activities</b> Facility Improvement & Maintenance	5.9 miles of BLM Road 1011 through the monument. 155-acre intensive use area.	Same as Alternative A, except the intensive use area would be enlarged to 241 acres, & a system would be developed for a safe & dependable public water supply.	Same as Alternative B
Recreational Visits	Privacy would decrease & intrusion on traditional use & resource degradation would increase as visitation moved toward 150,000 visitors/year.	Management would influence visitation to stabilize visitors at approximately 50,000/year to minimize intrusion & resource degradation.	Same as Alternative B
Cultural Resources (indirect impacts)	Illegal collection, cumulative & irreversible impacts may result in loss of sites.		Same as Alternative B
Prescribed Fire (as a management tool)	Would have reduced effectiveness in the 155-acre intensive use area.	Would have reduced effectiveness in the 241-acre intensive use area.	Would have reduced effectiveness in the 280-acre intensive use area.
Unique Geologic Features	150,000 visitors/year would result in a high probability of damaging or destroying some unique geologic features on 175.7 federal acres in the monument.	50,000 visitors/year would reduce the probability of damage &/or destruction of unique geologic features on lands within & adjoining the monument.  Long-term protection of geologic features would be provided by proper location of recreational signing & facility location.	Same as Alternative B  Same as Alternative B
<u>Visual Resources Management (VRM)</u> VRM Class I acres Class II acres (monument) Class III acres (monument) Class IV acres	0 4,124 0 0	0 3,030 1,094** 0 **(w/less restrictive facility development compliance)	0 2,004 2,120 0
Water	Trampling of vegetation & development of social trails on 155 acres of intensive use area would result in increased erosion & delivery of sedimentation to stream channels.  Drinking water is not available in the monument.	Trampling of vegetation & development of social trails on 241 acres of intensive use area would result in increased erosion & delivery of sedimentation to stream channels.  Drinking water would be made available that meets supply & quality needs, health & safety requirements.	Trampling of vegetation & development of social trails on 280 acres of intensive use area would result in increased erosion & delivery of sedimentation to stream channels.  Drinking water would be made available that meets supply & quality needs, health & safety requirements.

ISSUE/Element or Factor	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
Wildlife Habitat Visitor Numbers	Visitation could reach 150,000/year. Most direct impacts to wildlife would come from interaction with the visiting public.	Management would encourage visitation at about 50,000/year. Most direct impacts to wildlife would come from interaction with the visiting public.	Same as Alternative B
<b>Issue 3: Recreational Activities</b> (concl'd) <u>Wildlife Habitat</u> , concl'd Fragmentation (per square mile of federal habitat)	Approximately 2.98 miles of road & 1.28 miles of trails. The potential exists for indirect & long-term effects from noxious weed introduction.	Approximately 1.5 miles of road & 1.23 miles of trails. Same as Alternative A	Approximately 1.79 miles of road & 1.5 miles of trails. Same as Alternative A
Vegetation & Woodland Management	The 155 acres used for intensive recreation by as many as 150,000 visitors/year would have little opportunity to develop diverse, healthy vegetation.	The 241 acres used for intensive recreation by as many as 50,000 visitors/year would have little opportunity to develop diverse, healthy vegetation.	The 280 acres used for intensive recreation by as many as 50,000 visitors/year would have little opportunity to develop diverse, healthy vegetation.
<b>Issue 4: Ecosystem Restoration</b> Access & Transportation	Close 0.0 miles of road	Close 9.5 miles of road, rehabilitate by natural &/or mechanical means.	Close 7.6 miles of road, rehabilitate by natural &/or mechanical means.
Rangeland/Livestock Grazing	Close 0.4 miles of trail, rehabilitate by natural &/or mechanical means. Retire 4,088 federal acres from grazing allotments. This would help to return to a natural fire regime, reduce potential for catastrophic fire, improve watershed conditions, & improve ecologic diversity.	Close 2.1 miles of trail, rehabilitate by natural &/or mechanical means. Same as Alternative A, except short-term grazing could be permitted to advance the purposes of the proclamation.	Same as Alternative A Same as Alternative B
Vegetation & Woodland Treatment	610 acres of treatment would result in long-term vegetative health & diversity & improved watershed condition.	Same as Alternative A, except identified &/or recommended acquisition could increase the acres of treatment.	Same as Alternative B
Riparian Areas	Exclosures & monitoring would lead to expansion of riparian habitat areas where possibility is demonstrated. Need for exclosures & monitoring would be reevaluated at the end of 5 years unless positive results have been occurring.	Same as Alternative A, except identified & recommended acquisition could lead to expansion of the exclosures, monitoring & riparian habitat area.	Same as Alternative B
<b>Issue 5: American Indian Uses &amp; Traditional Cultural Practices</b> Access & Transportation	Intrusion of many miles of road would result in loss of privacy in highly valued traditional use area.	Miles of road in traditional use area reduced by 3 to 5 miles. Infrequent short-term closures could be requested on open roads & trails.	Same as Alternative A Same as Alternative B

ISSUE/Element or Factor	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
	Intrusion of 5.9 miles of improved road would cause loss of privacy in highly valued traditional use area.	Affected tribes & pueblos would be consulted on access & transportation activities.  Same as Alternative A	Same as Alternative B  Same as Alternative A
<b><u>Issue 5: American Indian Uses &amp; Traditional Cultural Practices</u></b> , concluded Traditional Use Concerns	Close day-to-day consultation with Pueblo de Cochiti.  Consultation with other tribes as required for NEPA, NHPA, & NAGPRA.  Consultation with tribes as required for cultural resource compliance.	Same as Alternative A  Same as Alternative A  Same as Alternative A	Same as Alternative A  Same as Alternative A  Same as Alternative A
Cultural Resources	Pueblo de Cochiti involved in management through Cooperative Management Agreement; consultation with other tribes & pueblos.	Same as Alternative A	Same as Alternative A
Environmental Justice			